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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,718	05/17/2001	James M. Gust	GRD0122.CIP	4110

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EXAMINER

PATEL, DHIRUBHAI R

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 01/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/859,718

Applicant(s)

GUST ET AL.

Examiner

DHIRU R PATEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Part III DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, sole hermetically sealing recited in claims 1,10 and 14 must be shown or the feature(s) canceled from the claim(s). Examiner suggests showing reference number for sole hermetically sealing. A proposed drawing correction or corrected drawings are required in reply to the office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. No new matter should be entered.

Applicant is responsible for showing reference number for claimed invention.

2. Applicant is required to submit a proposed drawing correction in reply to this office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1,10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural

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connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: solely hermetically sealing said tubing end is not shown on the drawings.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-4, 7-10, and 13 as best understood, are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Guginsky (5,283,393) in view of George Jr. (4,271,458).

Guginsky discloses : an electrical assembly 10, comprising;

Regarding claim 1, at least one electrical conductor 29 (see fig 1), a flexible electrical tubing 11 having an end (conduit, see fig 1, column 3 lines 25-27, and Webster's II New Riverside University Dictionary page 296 define "conduit" as a tube), said tubing loosely carrying said at least one electrical conductor 29(see fig 1); and an electrical component 12 (fitting, see fig 1, column 3 lines 35-40) associated with said at least one electrical conductor 29 (see fig 1), said electrical component hermetically sealing said tubing end (see fig 1, column 2 lines 10-20, lines 45-60, and column 3 lines 35-45), but fails to disclose said electrical component solely hermetically sealing said tubing end. George Jr teaches the use of a flexible electrical tube end 30 with a solely hermetically sealant 32 in order to forming a fluid-type seal (see fig 1, column 2 lines 55-61). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the end of the flexible electrical tubing 11 of the assembly of Guginsky with a solely hermetically sealant as taught by George Jr. in order to forming a fluid-type seal, as well as protect the flexible electrical tubing 11 from environmental contamination entering into the flexible electrical tubing 11.

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Regarding claim 2 , the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including said tubing including an inner surface (see fig 1 of Guginsky), said electrical component hermetically sealing with said inner surface (see column 2 lines 45-60 of Guginsky, please note that the modified assembly of Guginsky meet the claimed limitation).

Regarding claim 3, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including said electrical component comprising an electrical connector (see column 4 lines 33-36 of Guginsky) having at least one electrical terminal (inherent properties of a connector), and capable of functioning as claimed by inventor.

Regarding claim 4, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including a plug 24 (see fig 1, column 2 lines 46-48 of George Jr. please note that the modified assembly of Guginsky meet the claimed limitation)

Regarding claims 7 and 13, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including said tubing including a non- smooth inner surface (see fig 1 of Guginsky), said electrical component (for claim 7) and said electrical connector (for claim 13) having an outer periphery which is in continuous, intimate physical contact with said inner surface (see fig 2 of Guginsky).

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Regarding claim 8, the modified assembly of Guginsky disclosed all the feature of the claimed invention. With respect to said electrical component formed by the process of insert molding with said tubing. The presence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

Regarding claim 9, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including said tubing having a non-smooth outer surface with one of a convoluted and spiral shape (see fig 1 of Guginsky).

Regarding claim 10, Guginsky discloses : an electrical assembly 10, comprising;

at least one electrical conductor 29 (see fig 1), a flexible electrical tubing 11 having an end (conduit, see fig 1, column 3 lines 25-27 and Webster's II New Riverside University Dictionary page 296 define "conduit" as a tube), said tubing loosely carrying said at least one electrical conductor 29 (see fig 1); and an electrical connector 12 (see column 4 lines 33-36) having at least one electrical terminal (inherent properties of a connector), said electrical component hermetically sealing said tubing end (see fig 1, see fig 1, column 2 lines 10-20, lines 45-60, and column 3 lines 35-45, and capable of functioning as claimed by inventor), but fails to disclose solely hermetically sealing said tubing end.

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George Jr teaches the use of a flexible electrical tube end 30 with a solely hermetically sealant 32 in order to forming a fluid-type seal (see fig 1, column 2 lines 55-61). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the end of the flexible electrical tubing 11 of the assembly of Guginsky with a solely hermetically sealant as taught by George Jr. in order to forming a fluid-type seal, as well as protect the flexible electrical tubing 11 from environmental contamination entering into the flexible electrical tubing 11.

5. Claims 5- 6 as best understood, are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Guginsky (5,283,393) in view of George Jr (4,271,458) as applied to claims 1 above, and further in view of Shimirak et al (4,701,574).

Regarding claims 5- 6, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, but fails to disclose at least one annular projection engaged with said inner surface for claim 5, and a plurality of annular projections for claim 6. Shimirak et al teach the use of a plurality of annular projections 88 (see fig 3) in order to prevent positively water or moisture from propagating axially down the end seal along an outer surface 88 of the end seals (see column 4 lines 52-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to provide the said electrical component of the modified assembly of Guginsky with at least one annular projection (for claim 5) and a plurality of annular projections (for claim 6) as taught by Shimirak et al in order to prevent positively water or moisture from propagating axially down the end seal along an outer surface of the end seals.

6. Claims 11-12 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Guginsky (5,283,393) in view of George Jr (4,271,458) as applied to claims 10 above, and further in view of Shimirak et al (4,701,574). Regarding claims 11-12, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, but fails to disclose at least one annular projection engaged with said inner surface for claim 11 and a plurality of annular projections for claim 12. Shimirak et al teach the use of a plurality of annular projections 88 (see fig 3) in order to prevent positively water or moisture from propagating axially down the end seal along an outer surface 88 of the end seals (see column 4 lines 52-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide said electrical connector of the modified assembly of Guginsky with at least one annular projection (for claim 11) and a plurality of annular projections (for claim 12) as taught by Shimirak et al in order to prevent positively water or moisture from propagating axially down the end seal along an outer surface of the end seals.

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7. Claims 14-17 as best understood, are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Guginsky (5,283,393) in view of George Jr (4,271,458).

Regarding claim 14, Guginsky discloses at least one electrical conductor 29 (see fig 1), a flexible electrical tubing 11 having an end (conduit, see fig 1, column 3 lines 25-27), said tubing loosely carrying said at least one electrical conductor (see fig 1). Guginsky fail to disclose a plug solely hermetically sealing said tubing end . George Jr teaches the use of a flexible electrical tube end 30 with a plug 24 and a solely hermetically sealant 32 (for plug 24) in order to forming a fluid-type seal (see fig 1, column 2 lines 50-61). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide said tubing end of the assembly of Guginsky with a plug and said plug being solely hermetically sealed as taught by George Jr. in order to forming a fluid-type seal.

Regarding claims 15-16, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, and It is noted that the modified assembly of Guginsky meet the structural limitations that including at least one annular projection engaged with said inner surface for claim 15 and a plurality of annular projections for claim 16.

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Regarding claims 17, the modified assembly of Guginsky disclose all the features of the claimed invention as shown above, including said tubing including a non- smooth inner surface (see fig 1 of Guginsky), said electrical component having an outer periphery which is in continuous, intimate physical contact with said inner surface (see fig 2 of Guginsky).

Response to Arguments

8. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Contact information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhiru Patel whose telephone number is (703) 308 -3748. The examiner can normally be reached on Mondays- Thursdays from 6:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard be reached at 703-308-3682. The fax number for this Group is 703-305-3431. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Dhiru Patel
Patent Examiner
Group Art Unit 2831
January 23, 2003

Dhiru Patel